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Sequence Listing was accepted.

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217-9197 (toll free).

Reviewer: Saleem, Syed (ASRC)

Timestamp: [year=2010; month=11; day=5; hr=8; min=16; sec=39; ms=487; ]

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Application No: 10687799

Version No: 3.1

**Input Set:****Output Set:****Started:** 2010-11-05 08:14:11.819**Finished:** 2010-11-05 08:14:15.502**Elapsed:** 0 hr(s) 0 min(s) 3 sec(s) 683 ms**Total Warnings:** 61**Total Errors:** 0**No. of SeqIDs Defined:** 95**Actual SeqID Count:** 95

Error code	Error Description
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W 213	Artificial or Unknown found in <213> in SEQ ID (32)
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W 213	Artificial or Unknown found in <213> in SEQ ID (34)
W 213	Artificial or Unknown found in <213> in SEQ ID (35)
W 213	Artificial or Unknown found in <213> in SEQ ID (36)
W 213	Artificial or Unknown found in <213> in SEQ ID (37)
W 213	Artificial or Unknown found in <213> in SEQ ID (38)
W 213	Artificial or Unknown found in <213> in SEQ ID (39)
W 213	Artificial or Unknown found in <213> in SEQ ID (40)
W 213	Artificial or Unknown found in <213> in SEQ ID (41)
W 213	Artificial or Unknown found in <213> in SEQ ID (42)
W 213	Artificial or Unknown found in <213> in SEQ ID (43)
W 213	Artificial or Unknown found in <213> in SEQ ID (44)
W 213	Artificial or Unknown found in <213> in SEQ ID (45)
W 213	Artificial or Unknown found in <213> in SEQ ID (46)
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W 213	Artificial or Unknown found in <213> in SEQ ID (49)
W 213	Artificial or Unknown found in <213> in SEQ ID (50)

**Input Set:**

**Output Set:**

**Started:** 2010-11-05 08:14:11.819  
**Finished:** 2010-11-05 08:14:15.502  
**Elapsed:** 0 hr(s) 0 min(s) 3 sec(s) 683 ms  
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**No. of SeqIDs Defined:** 95  
**Actual SeqID Count:** 95

Error code

Error Description

This error has occurred more than 20 times, will not be displayed

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<110> Teeling, Jessica  
 Ruuls, Sigrid  
 Glennie, Martin  
 van de Winkel, Jan G.J.  
 Parren, Paul  
 Petersen, Jorgen  
 Baadsgaard, D.M.Sc., Ole  
 Huang, Haichun

<120> HUMAN MONOCLONAL ANTIBODIES AGAINST CD20

<130> 4086.1000-002

<140> 10687799

<141> 2003-10-17

<150> 60/419,163

<151> 2002-10-17

<150> 60/460,028

<151> 2003-04-02

<160> 95

<170> FastSEQ for Windows Version 4.0

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<212> DNA

<213> Homo sapiens

<400> 1

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tgtgcagcct ctggattcac ctttaatgat tatgccatgc actgggtccg gcaagctcca 180
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gactctgtga agggccgatt caccatctcc agagacaacg ccaagaagtc cctgtatctg 300
caaatgaaca gtctgagagc tgaggacacg gccttgtatt actgtgcaaa agatatacag 360
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<210> 2

<211> 122

<212> PRT

<213> Homo sapiens

<400> 2

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  1              5              10              15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Asp Tyr
      20              25              30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
      35              40              45
```

Ser Thr Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val  
50 55 60  
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Ser Leu Tyr  
65 70 75 80  
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys  
85 90 95  
Ala Lys Asp Ile Gln Tyr Gly Asn Tyr Tyr Tyr Gly Met Asp Val Trp  
100 105 110  
Gly Gln Gly Thr Thr Val Thr Val Ser Ser  
115 120

<210> 3  
<211> 382  
<212> DNA  
<213> Homo sapiens

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ctctcctgca gggccagtc gagtgtagc agctacttag cctggtacca acagaaacct 180  
ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catccagcc 240  
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 300  
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<210> 4  
<211> 107  
<212> PRT  
<213> Homo sapiens

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20 25 30  
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile  
35 40 45  
Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly  
50 55 60  
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro  
65 70 75 80  
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85 90 95  
Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys  
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tgtgcagcct ctggattcac ctttcatgat tatgccatgc actgggtccg gcaagctcca 180

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gggaagggcc tggagtgggt ctcaactatt agttggaata gtggtaccat aggctatgcg 240
gactctgtga agggccgatt caccatctcc agagacaacg ccaagaactc cctgtatctg 300
caaatgaaca gtctgagagc tgaggacacg gccttgtatt actgtgcaaa agatatacag 360
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tcag 424

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<210> 6  
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 <212> PRT  
 <213> Homo sapiens

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<400> 6
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Asp Arg
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe His Asp Tyr
 20          25          30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35          40          45
Ser Thr Ile Ser Trp Asn Ser Gly Thr Ile Gly Tyr Ala Asp Ser Val
 50          55          60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65          70          75          80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
 85          90          95
Ala Lys Asp Ile Gln Tyr Gly Asn Tyr Tyr Tyr Gly Met Asp Val Trp
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115          120

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ctctcctgca gggccagtc gagtggttagc agctacttag cctggtacca acagaaacct 180
ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 240
aggttcagtg gcagtgggtc tgggacagac ttactctca ccatcagcag cctagagcct 300
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gggacacgac tggagattaa ac 382

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<210> 8  
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 <213> Homo sapiens

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<400> 8
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1          5          10          15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
 20          25          30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35          40          45
Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly

```

50	55	60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro		
65	70	75
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Trp Pro Ile		80
	85	90
Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys		95
	100	105

<210> 9  
 <211> 433  
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 gttcagctgg tgcagtctgg gggaggcttg gtacatcctg gggggtcctt gagactctcc 120  
 tgtacaggct ctggattcac cttcagttac catgctatgc attgggttcg ccaggctcca 180  
 ggaaaaggct tggaatgggt atcaattatt gggactgggt gtgtcacata ctatgcagac 240  
 tccgtgaagg gccgattcac catctccaga gacaatgtca agaactcctt gtatcttcaa 300  
 atgaacagcc tgagagccga ggacatggct gtgtattact gtgcaagaga ttactatggt 360  
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<210> 10  
 <211> 125  
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<400> 10  
 Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val His Pro Gly Gly  
 1 5 10 15  
 Ser Leu Arg Leu Ser Cys Thr Gly Ser Gly Phe Thr Phe Ser Tyr His  
 20 25 30  
 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
 35 40 45  
 Ser Ile Ile Gly Thr Gly Gly Val Thr Tyr Tyr Ala Asp Ser Val Lys  
 50 55 60  
 Gly Arg Phe Thr Ile Ser Arg Asp Asn Val Lys Asn Ser Leu Tyr Leu  
 65 70 75 80  
 Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala  
 85 90 95  
 Arg Asp Tyr Tyr Gly Ala Gly Ser Phe Tyr Asp Gly Leu Tyr Gly Met  
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 115 120 125

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 ctctcctgca gggccagtca gagtgttagc agctacttag cctggtacca acagaaacct 180

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ggccaggctc ccaggctcct catctatgat gcattccaaca gggccactgg catcccagcc 240
aggttcagtg gcagtgggtc tgggacagac ttactctca ccatcagcag cctagagcct 300
gaagattttg cagtttatta ctgtcagcag cgtagcgact ggccgctcac ttccggcgga 360
gggaccaagg tggagatcaa ac 382

```

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<210> 12
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<212> PRT
<213> Homo sapiens

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Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
 20             25             30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35             40             45
Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
 50             55             60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
 65             70             75             80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asp Trp Pro Leu
 85             90             95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 100             105

```

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<210> 13
<211> 5
<212> PRT
<213> Homo sapiens

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<400> 13
Asp Tyr Ala Met His
 1             5

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<210> 14
<211> 17
<212> PRT
<213> Homo sapiens

```

```

<400> 14
Thr Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val Lys
 1             5             10             15
Gly

```

```

<210> 15
<211> 13
<212> PRT
<213> Homo sapiens

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```

<400> 15
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```



<210> 16  
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<212> PRT  
<213> Homo sapiens

<400> 16  
Arg Ala Ser Gln Ser Val Ser Ser Tyr Leu Ala  
1 5 10

<210> 17  
<211> 7  
<212> PRT  
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<400> 17  
Asp Ala Ser Asn Arg Ala Thr  
1 5

<210> 18  
<211> 9  
<212> PRT  
<213> Homo sapiens

<400> 18  
Gln Gln Arg Ser Asn Trp Pro Ile Thr  
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<210> 19  
<211> 5  
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Asp Tyr Ala Met His  
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<210> 20  
<211> 17  
<212> PRT  
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<400> 20  
Thr Ile Ser Trp Asn Ser Gly Thr Ile Gly Tyr Ala Asp Ser Val Lys  
1 5 10 15  
Gly

<210> 21  
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<212> PRT

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Asp Ile Gln Tyr Gly Asn Tyr Tyr Tyr Gly Met Asp Val  
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<210> 22

<211> 11

<212> PRT

<213> Homo sapiens

<400> 22

Arg Ala Ser Gln Ser Val Ser Ser Tyr Leu Ala  
1 5 10

<210> 23

<211> 7

<212> PRT

<213> Homo sapiens

<400> 23

Asp Ala Ser Asn Arg Ala Thr  
1 5

<210> 24

<211> 9

<212> PRT

<213> Homo sapiens

<400> 24

Gln Gln Arg Ser Asn Trp Pro Ile Thr  
1 5

<210> 25

<211> 5

<212> PRT

<213> Homo sapiens

<400> 25

Tyr His Ala Met His  
1 5

<210> 26

<211> 16

<212> PRT

<213> Homo sapiens

<400> 26

Ile Ile Gly Thr Gly Gly Val Thr Tyr Tyr Ala Asp Ser Val Lys Gly  
1 5 10 15

<210> 27  
<211> 17  
<212> PRT  
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<400> 27  
Asp Tyr Tyr Gly Ala Gly Ser Phe Tyr Asp Gly Leu Tyr Gly Met Asp  
1 5 10 15  
Val

<210> 28  
<211> 11  
<212> PRT  
<213> Homo sapiens

<400> 28  
Arg Ala Ser Gln Ser Val Ser Ser Tyr Leu Ala  
1 5 10

<210> 29  
<211> 7  
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<213> Homo sapiens

<400> 29  
Asp Ala Ser Asn Arg Ala Thr  
1 5

<210> 30  
<211> 9  
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<213> Homo sapiens

<400> 30  
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<220>  
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<400> 31  
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<220>

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28

<210> 33

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<210> 34

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<220>

<221> variation

<222> (13)...(13)

<223> n = T or G

<400> 34

naggtgcagc tgntggagtc

20

<210> 35

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 35

gaggtgcagc tggcgcagtc

20

<210> 36

<211> 21

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<211> 21  
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<220>  
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21

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<210> 44  
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<220>  
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<400> 44  
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<210> 45  
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<220>  
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<220>  
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27

<210> 53

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 53

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20

<210> 54

<211> 116

<212> PRT

<213> Homo sapiens

<400> 54

Met Glu Leu Gly Leu Ser Trp Val Phe Leu Val Ala Ile Leu Glu Gly

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Val Gln Cys Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val His

20 25 30

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala